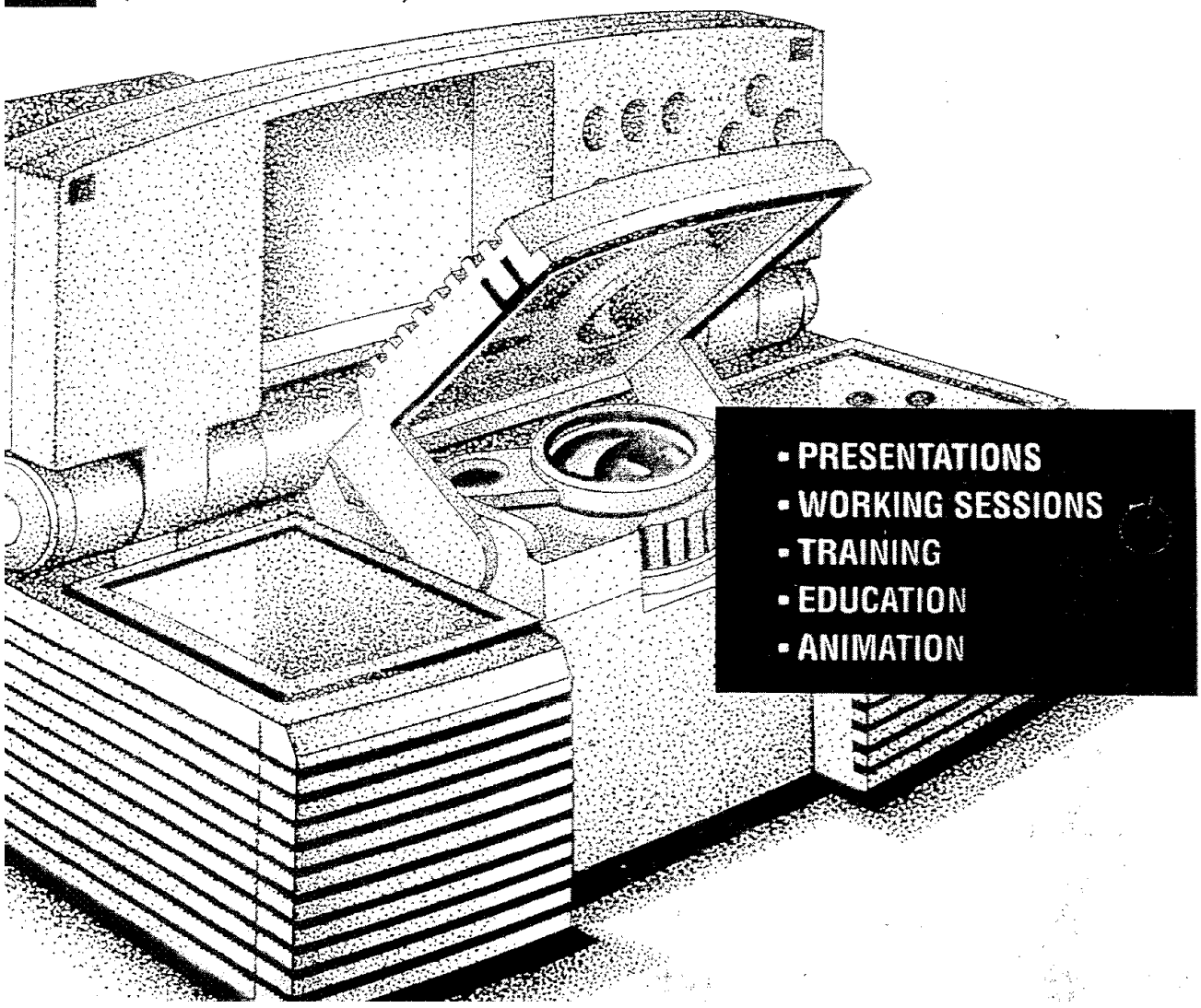
USER'S GUIDE

PROXIMA®

Desktop Projector™

True-Color Data LCD Projector
(Model DP2300)



Quick Setup Procedures

1. Place the projector on a solid flat surface at a right angle (perpendicular) to the projection screen and parallel to the floor.
2. Raise the cover assembly until it clicks into place.
3. Raise the mirror assembly into its fully open position.

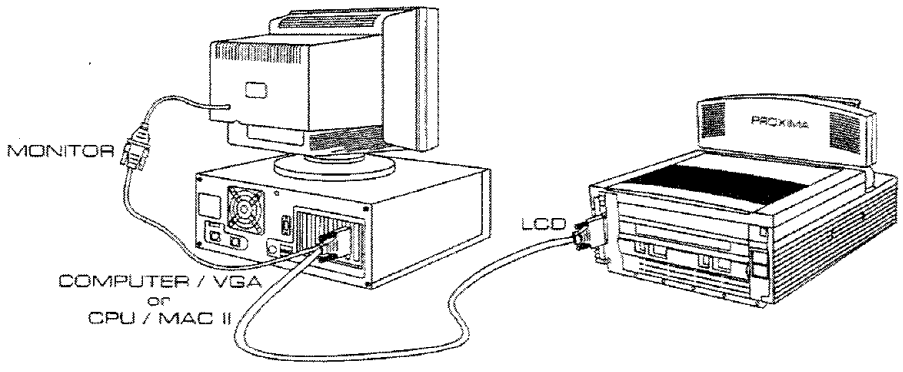
For steps 4-7, select the appropriate procedure for your system:

Desktop Computers

4. Turn off the computer, monitor, and Desktop Projector.
5. Unplug the monitor cable from the computer and attach it to the MONITOR end of the "Y" cable.
6. Plug the "Y" cable's COMPUTER (or CPU) end into the computer's monitor port.
7. Insert the "Y" cable's LCD end into the projector's COMPUTER port.

Notebooks/Laptops

4. Turn off the computer and the Desktop Projector.
5. Plug the "Y" cable's COMPUTER (or CPU) end into the computer's monitor port.
6. Insert the "Y" cable's LCD end into the projector's COMPUTER port.
7. Attach the Macintosh or VGA video terminator to the "Y" cable's MONITOR end.

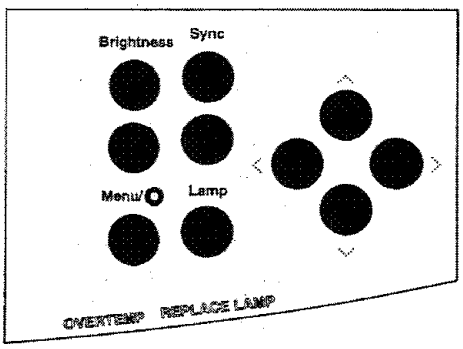


8. Power up the Desktop Projector and external monitor *before* turning on the computer so that each display is properly sensed during the computer's boot-up sequence.

9. Rotate the projector's focus ring for the clearest displayed image. Use the title screen image that appears when you first power up the projector.

NOTE: The Connector Panel's RS-232 port can be used with the optional Cyclops interactive pointer system or Proxima's Presentation Control Software. Installation instructions are included with Cyclops and the software.

Control Panel



CONTROL	FUNCTION
BRIGHTNESS	Increases/decreases the brightness of the projected image.
SYNC	Compensates for fine variations in the timing of the computer video signal.
MENU /	Press to display the Menu Window. Hold down for several seconds to initiate (optional) Cyclops light measurement sequence. Hold down when powering up projector to disable Cyclops.
LAMP	Toggles the projection lamp ON/OFF.
ARROWS	Makes small adjustments to the projected image's position. Changes Menu Window settings when in MENU mode: - Press the Right/Left arrow key to move to the setting. - Press the Up/Down arrow key to change the setting.

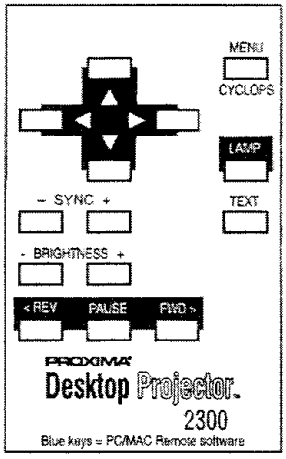
Warning/Alert Lights

Warning and alert lights located on the projector's control panel provide you with an indication of the Desktop Projector's operating condition.

CONTROL	FUNCTION
OVERTEMP	Illuminates in the unlikely event the projector reaches an over-temperature condition.
REPLACE LAMP	Illuminates if the active and/or spare projector lamp has burned out.

Remote Control

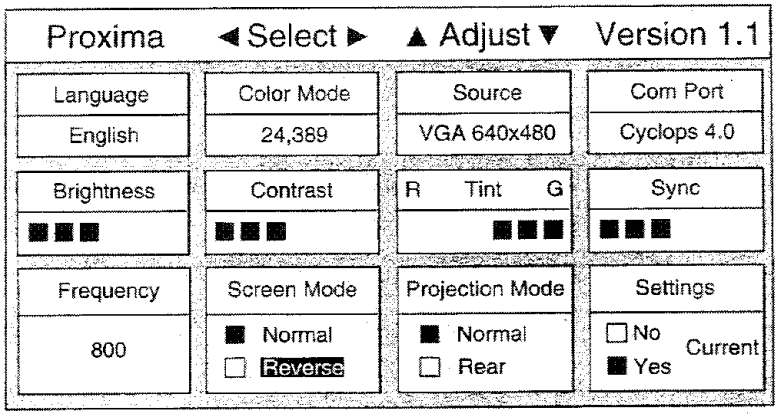
The Remote Control contains all the key functions available on the Control Panel and provides access to additional functions not available on the Control Panel or through the Menu Window.



CONTROL	FUNCTION
TEXT	Toggles between Graphics mode of 640 x 480 lines and Text mode of 720 x 400 lines. DOS text is easier to view when using Text mode.
REV/PAUSE/FWD	Works with Proxima's Presentation Control Software, which can be used to sequence electronic slides. Detailed instructions are included with the software.

Menu Window

Press the MENU/ key to display the Menu Window.



CONTROL	FUNCTION
LANGUAGE	Switches the language set used in the Menu Window: English, French, German, Italian, and Spanish.
COLOR MODE	Selects the color mode most suitable for the projected image.
SOURCE	Indicates the source detected by the projector. Doubles as both a status and selection box.
COM PORT	Reflects the current status of the projector's serial port.
BRIGHTNESS	Increases/decreases the overall brightness of the projected image.
CONTRAST	Adjusts the difference between light and dark segments of the projected image.
TINT	Adjusts the Red and Green color balance.
SYNC	Compensates for fine variations in the timing of the computer video signal.
FREQUENCY	Synchronizes the projector with the video source.
SCREEN MODE	Switches between NORMAL and REVERSE modes. REVERSE is used primarily for viewing text screens.
PROJECTION MODE	Flips the displayed image for use with a rear projection screen.
SETTINGS	Retrieves factory-set or stored settings, or saves the current settings.

Getting Help

For technical support, please contact your dealer or call Proxima at:

U.S.A. and Canada:

(619) 457-5500
Press 1 for Customer Service
(619) 457-8542 (Fax)

Outside U.S.A and Canada:

(619) 457-5500
Press 1 for Customer Service
(619) 622-0173 (Fax)

Europe:

+31-43-650 248
+31-43-649 220 (Fax)

Proxima Corporation

Main Office:
9440 Carroll Park Drive
San Diego, CA 92121-2256
U.S.A.

In Europe:
Horsterweg 24
6191 RX Beek
The Netherlands

For Warranty, Patent and FCC compliance information, refer to the *Desktop Projector 2300 User's Guide.*
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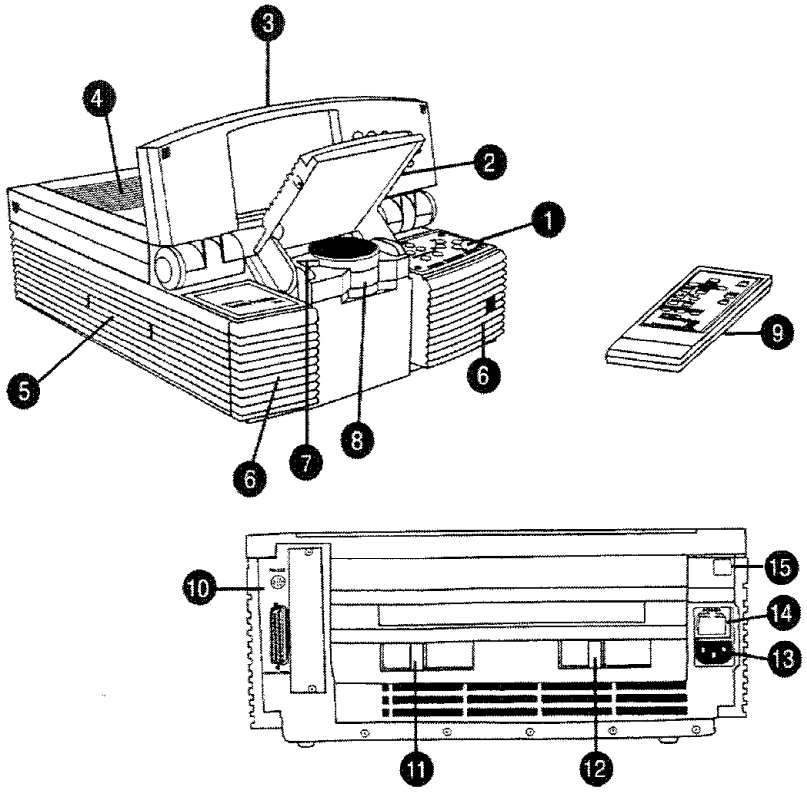
QUICK REFERENCE GUIDE

PROXIMA®

Desktop Projector™ 2300



The Proxima® Desktop Projector™ and Remote Control:

1) Control Panel
2) Mirror Assembly
3) Cover Assembly
4) Top Air Intake Filter
5) Recessed Carrying Handle
6) Front Air Intake Filters
7) Cyclops Lens
8) Projection Lens Assembly and Focus Ring
9) Remote Control
10) Connector Panel
11) Lamp Selector
12) Lamp Chamber Latch
13) Power Cord Receptacle
14) Power Switch
15) Circuit Breaker Reset Button

USER'S GUIDE

PROXIMA®
Desktop Projector™ 2300

Model References

This manual contains information for setting up and using the Proxima® Desktop Projector™ 2300. This projector is referenced throughout the manual as follows:

- *Desktop Projector*
- *projector*
- *Desktop Projector 2300*
- *Model DP2300*

Warranty

Proxima Corporation warrants that the Proxima® Desktop Projector™ product manufactured by Proxima is free from defects in materials and workmanship under normal use during the Warranty Period. The Warranty Period commences on the day of purchase by the end–user. The Warranty Period is one year. The Desktop Projector lamps are not covered by this Warranty.

The end–user's sales receipt or invoice showing the date of purchase of the product and the name of the Reseller is proof of date of purchase. The Warranty extends only to the original purchaser and is not transferable.

During the Warranty Period, Proxima will, at no additional charge, repair or replace defective parts or at the option of Proxima, replace the entire unit.

This limited Warranty does not extend to any Proxima product that has been damaged or been rendered defective (a) as a result of accident, misuse or other abuse; (b) by the use of parts not manufactured or sold by Proxima; (c) by modification of the product; or (d) as a result of servicing by non–authorized personnel.

Limitation of Warranties

The foregoing Warranty is expressly in lieu of any other expressed or implied warranties, including, without limitation, warranties of merchantability or fitness for a particular purpose. To the extent not prohibited by law, all statutory warranties are hereby waived and excluded from this Warranty. Proxima expressly disclaims all warranties not stated in this Limited Warranty.

FCC Statement

Warning: This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with limits for a Class "A" computing device pursuant to Subpart B of Part 15 of the FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures may be necessary to correct the interference.

Trademarks and Copyright

Proxima and Cydops are registered trademarks of Proxima Corporation. Desktop Projector and trade dress are trademarks of Proxima Corporation. IBM is a registered trademark of International Business Machines Corporation. Macintosh is a registered trademark of Apple Computer, Inc. Other trademarks are the property of their respective owners. U.S patent number 5,153,568 applies to the Desktop Projector 2300. Other U.S. and foreign patents are pending.

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Chapter 1

Introducing the Proxima® Desktop Projector™

The Proxima Desktop Projector family consists of portable, color data and video LCD desktop projection products that make sharing data and presenting information as easy as connecting your computer to your monitor.

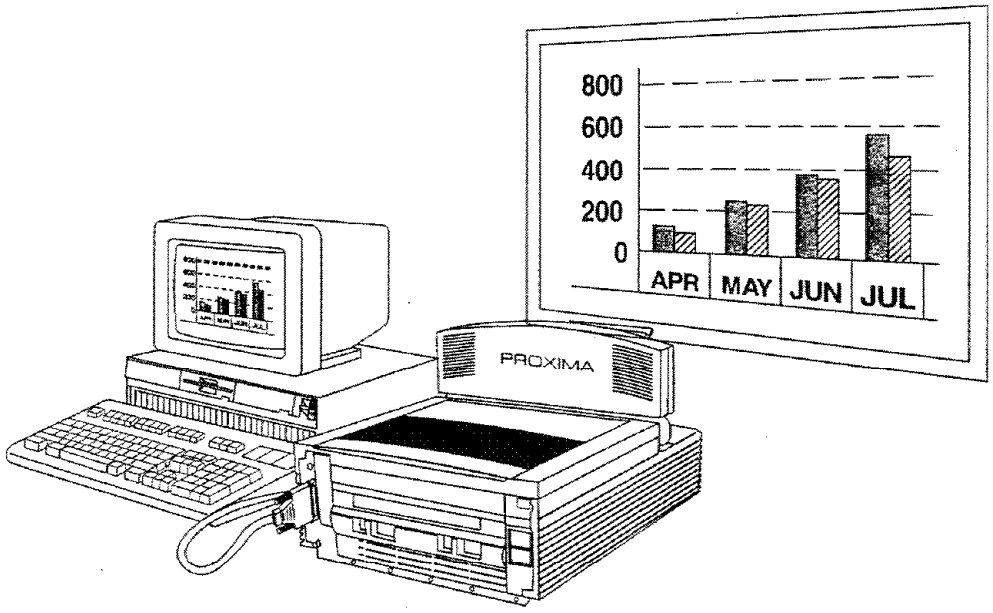


Figure 1
The Proxima Desktop Projector in use

Desktop Projector Family

The Desktop Projector family includes the following products:

- The Desktop Projector 2800 is a video–ready, active–matrix multimedia projector for all desktop projection applications.
- The Desktop Projector 2700 is an active–matrix, high–performance color projector with optional video capabilities.
- The Desktop Projector 2300 is an affordable high quality color projector for all data desktop projection applications.

This manual covers only the Model DP2300.

Cyclops Interactive Pointer System

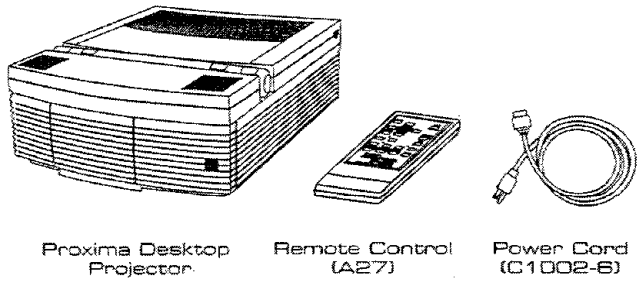
All Proxima Desktop Projectors come Cyclops-ready. Cyclops is an interactive pointer system that functions like a cordless mouse and lets you control your computer and software from the projection screen.

Note: You cannot use Cyclops and Proxima's Presentation Control Software at the same time. To disable Cyclops and use the software, hold the MENU key (Control Panel) down when you turn the projector power on. *This procedure will not work with the remote control.* To re-enable Cyclops, turn the projector off and then power it up again.

What's in the Box?

After you've opened the box and removed the Desktop Projector and shrink-wrapped accessory packs, make sure you have all the items shown in Figure 2.

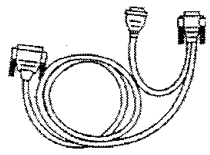
CAUTION! The Desktop Projector should be treated like any other precision optical instrument. Handle it carefully.



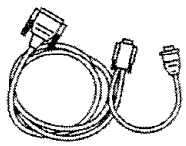
Proxima Desktop Projector

Remote Control (A27)

Power Cord (C1002-6)



VGA Video Y-Cable (C454-6)



Macintosh Video Y-Cable (C464-6)

Also included but not shown:

- Mac and VGA Video Terminators
- Dust Cover
- (2) AAA Alkaline Batteries
- User's Guide
- Product Registration Card

Figure 2
Items included with the Desktop Projector

Note: The European version has three extra power cords for Europe (part number C1003–6), Great Britain (part number C1011–6), and Italy (part number C1012–6).

Chapter 2

Detailed Setup

Your Proxima Desktop Projector

Before you begin, examine the components of the projector.

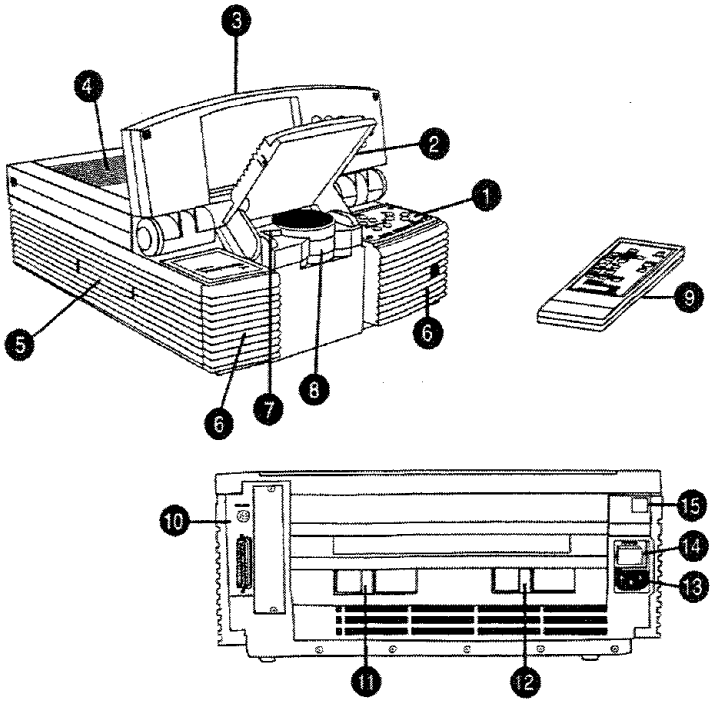


Figure 3
The Proxima Desktop Projector and Remote Control

(1) Control Panel
(2) Mirror Assembly
(3) Cover Assembly
(4) Top Air Intake Filter
(5) Recessed Handle
(6) Front Air Intake Filters
(7) Cyclops Lens
(8) Projection Lens Assembly and Focus Ring
(9) Remote Control
(10) Connector Panel
(11) Lamp Selector
(12) Lamp Chamber Latch
(13) Power Cord Receptacle
(14) AC Power Switch
(15) Circuit Breaker Reset Button

Getting Started

Opening the Projector

1. Place the projector on a solid, flat surface. The projector should be located at a right angle (perpendicular) to the projection screen and parallel to the floor.

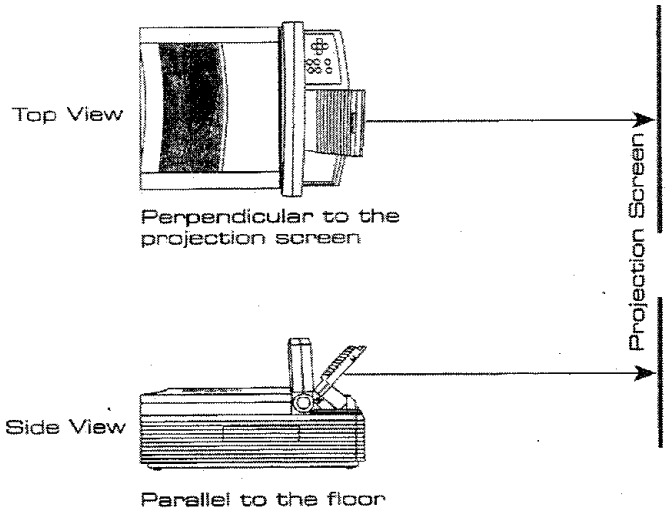


Figure 4
Positioning the Desktop Projector

Note: If you're using a media cart, make sure the wheels are locked to prevent it from moving.

2. Grasp the front edge of the cover assembly at the upper front of the projector. Raise it until it reaches the first stop. You can also use the projector in the fully open position by raising the cover assembly to the second stop.

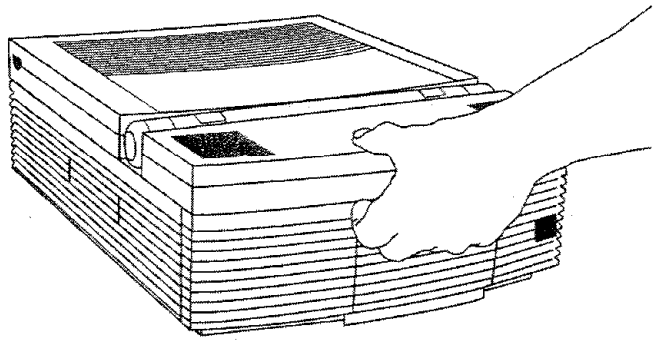


Figure 5
Opening the cover assembly

CAUTION! The Desktop Projector's cover and projection mirror assemblies have been designed to limit over-extension. Applying excessive pressure can damage the projector.

3. Place your fingers beneath the mirror assembly (located at the lower center of the front panel) and raise it into place until it reaches a 45° angle (approximately) relative to the top of the lens assembly.

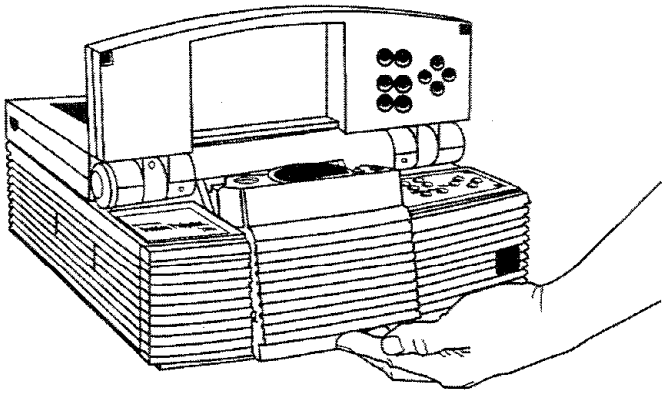


Figure 6
Raising the mirror assembly

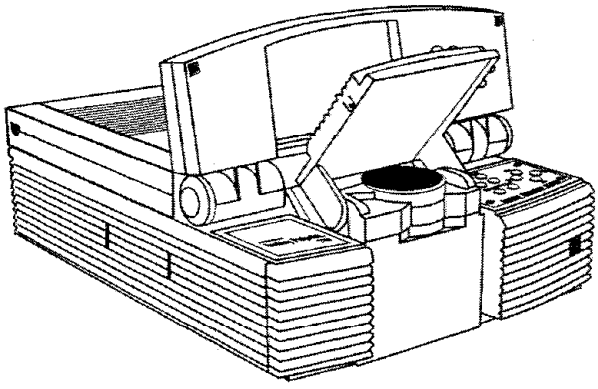


Figure 7
The Desktop Projector in the open position

Your projected image should fill the projection screen. If you want to raise or lower the projected image, simply adjust the mirror assembly to the appropriate angle.

CAUTION! DO NOT attempt to lift or move the projector by using the cover assembly or projection mirror as a handle. IT IS STRONGLY RECOMMENDED THAT YOU CLOSE THE PROJECTOR COMPLETELY BEFORE MOVING IT!

If you must move the projector while it is open, grasp it securely at the sides by the lower part of the housing to support the weight of the unit.

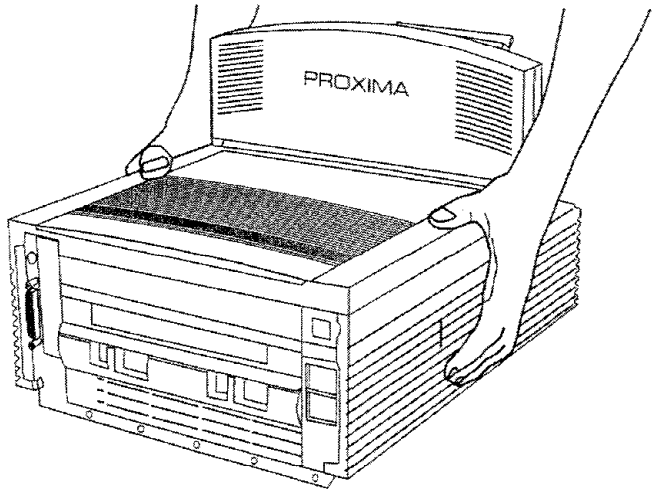


Figure 8
Moving the projector when open

Using an AV Tripod

Located on the bottom of the Desktop Projector is a connector for use with a tripod. Use only a heavy–duty, industrial audio–visual tripod that can support at least 20 pounds.

To attach the tripod to the projector:

1. Grasp the projector by the handle and stand it on its side.
2. Holding the tripod sideways, screw its threaded camera mount into the connector on the bottom of the projector.
3. Extend and lock the tripod's legs.
4. Grasp the projector by its handle and place your other hand under the unit (the side opposite the handle). Lift and turn the projector into its normal operating position on top of the tripod.

CAUTION! Be extremely careful when using the projector with a tripod. The following precautions should be observed:

- You can mount the projector on a tripod by yourself. However, it is easier to do this if someone else is holding the projector while you connect the mount.
- Make sure that the tripod legs and camera mount are securely locked.
- Do not place the tripod and projector in any pathways that you or your audience will be using during the presentation.
- Make sure that all cables are secured and out of the way. In particular, be extremely careful of the power cord and any extension cords.

Closing the Projector

To close the projector, reverse the opening procedures.

1. Rotate the projection mirror assembly forward and down until it is in the fully closed position.

2. Rotate the hinged cover assembly forward and down until it is in the fully closed position.

CAUTION! Gently close the mirror and hinged cover assembly. Forcing them to snap into place may damage the mirror assembly. Close the assemblies in the proper order. Do not attempt to close the projector by only moving the cover assembly.

Transporting the Projector

CAUTION! Do not move or transport the Desktop Projector without securely closing the projector and disconnecting all of the cables.

The Desktop Projector has a recessed carrying handle located in one of the side panels.

1. Push in on either end of the handle. Pull the handle up.
2. Release the handle. The spring-loaded mechanism will retract it back into the body of the projector.

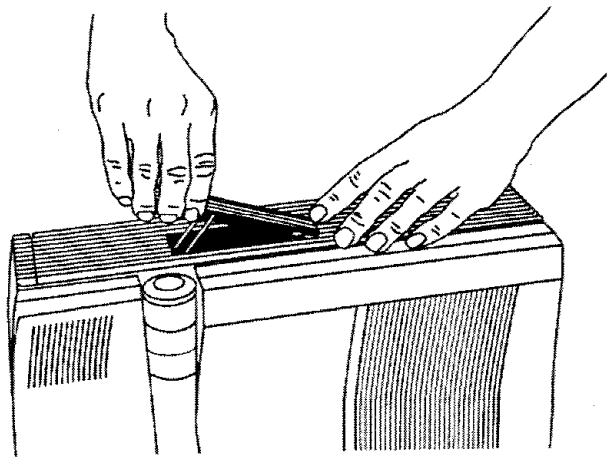


Figure 9
Accessing the handle

Note: The projector has protective feet on the side opposite the handle as well as on the bottom.

Connecting the Desktop Projector

Take a moment to look at the projector's rear connector panel.

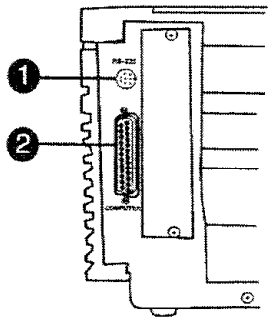


Figure 10
The Connector Panel

	Connector	Description
1	RS-232	For using the optional Cyclops interactive pointer system or Presentation Control Software
2	COMPUTER	Connects computer video to the projector

Connecting the Desktop Projector

Take a moment to look at the projector's rear connector panel.

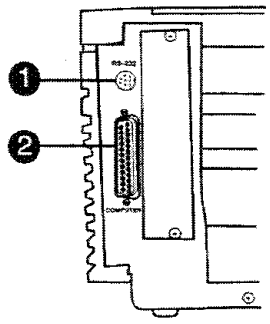


Figure 10
The Connector Panel

	Connector	Description
1	RS-232	For using the optional Cyclops interactive pointer system or Presentation Control Software
2	COMPUTER	Connects computer video to the projector

COMPUTER

The video Y-cable allows you to connect your computer to both the Desktop Projector and to a separate computer monitor so that you can view computer video output on the monitor and projection screen simultaneously.

Desktop Computers

If you are using a desktop computer, regardless of whether it's an IBM compatible or a Macintosh system, the sequence for connecting it to your Desktop Projector is exactly the same. Use the Y-cable appropriate to your system. For IBM compatibles, use part number C454–6; for Macintosh systems, use part number C464–6.

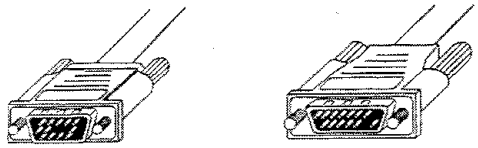


Figure 11
VGA and Macintosh connectors

1. Turn off all power to your computer, its monitor, and the Desktop Projector.

2. Unplug your monitor cable from your computer's video monitor port and attach the cable to the short end of the Y-cable (marked MONITOR).

3. Locate the Y-cable's common end, marked CPU/MAC II for Macintosh systems and COMPUTER/VGA for IBM compatibles. Plug it into the computer's monitor port.

4. Insert the Y-cable's large, 25–pin connector (marked LCD) into the Desktop Projector's COMPUTER port.

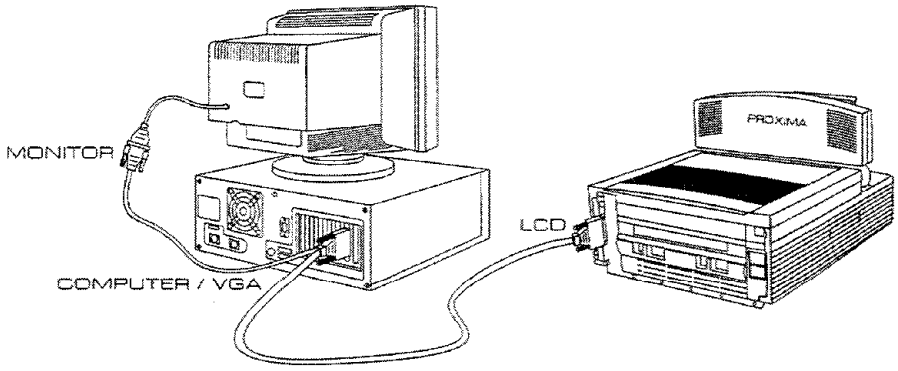


Figure 12
VGA connections

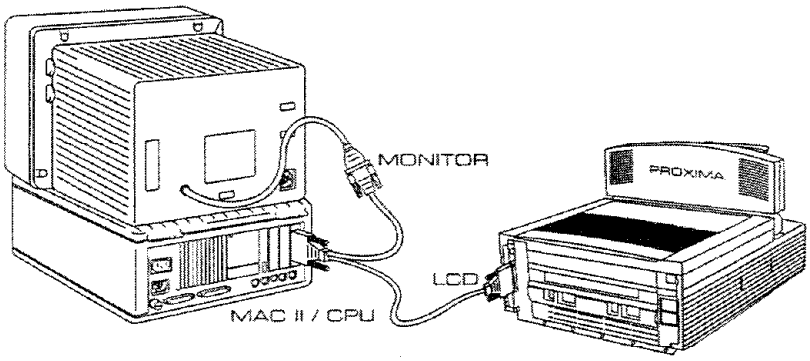


Figure 13
Macintosh connections

Note: If you want to use your desktop computer without a monitor, connect one of the supplied video terminators to the short end of the Y-cable (marked MONITOR). Use the appropriate terminator for your system. For IBM compatibles, use part number C936; for Macintosh systems, use part number C935.

Notebooks/Laptops

Use the Y-cable appropriate to your system. For IBM compatibles, use part number C454-6; for Macintosh systems, use part number C464-6.

1. Turn off all power to your notebook or laptop computer and the Desktop Projector.

2. Locate the Y-cable's common end, marked CPU/MAC II for Macintosh systems or COMPUTER/VGA for IBM compatibles. Plug it into the computer's monitor port.

3. Insert the Y-cable's large, 25–pin connector (marked LCD) into the Desktop Projector's COMPUTER port.

4. Attach the appropriate video terminator to the short end of the Y-cable (marked MONITOR). For IBM compatibles, use part number C936; for Macintosh systems, use part number C935.

Note: If you don't get an image (i.e., your Desktop Projector is unable to project an image at the same time that your laptop computer displays a screen image), refer to your computer's reference materials for information on how to switch between the internal screen and the video port.

Note: If you're using your notebook or laptop computer with an external monitor, follow the procedure described in the previous section titled *Desktop Computers.*

Special Configurations

If your computer has an internal monitor but does not have external video capabilities (i.e., Macintosh SEs and certain PowerBooks), you will need a video adapter card in order to attach the Desktop Projector. Setup for a third–party adapter is identical to the procedures outlined in the previous section titled *Desktop Computers.* Contact your dealer, Proxima Customer Service, or a third–party supplier for more information regarding video adapters.

RS-232

The RS–232 port allows you to use the optional Cyclops interactive pointer system or the Proxima Presentation Control Software. Instructions for connecting the appropriate serial or ADB cables are included with each of these products.

Powering Up

Your Desktop Projector and external monitor (if you are using one) must be powered up *before* turning on your computer, so that your computer properly senses each display during its boot-up sequence.

Applying Power to the Projector

On the rear connector panel of the projector, you'll find a power cord receptacle and an AC POWER switch.

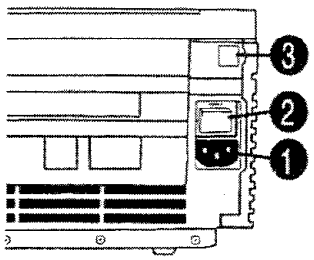


Figure 14
Power receptacle (1), AC POWER switch (2), and circuit breaker reset button (3)

To power up the projector:

1. Plug the power cord into the Desktop Projector's power receptacle at the rear of the unit.

CAUTION! Plug the AC power cord into the Desktop Projector *BEFORE* connecting it to an electrical outlet. If you plug the power cord into the wall first, it might damage the projector.

2. Connect the power cord to a properly grounded wall outlet.

3. Move the AC POWER switch to the ON position. The projector's fan will begin to run. If you do not hear the fan, refer to *Chapter 5, Troubleshooting.*

4. Turn on your monitor and computer.

CAUTION! Locate the air intake and exhaust grills on the top cover and to the left and right sides of the projection mirror assembly, and the exhaust grills on the rear panel and side of the projector. Never operate the projector if these grills are clogged or obstructed, or if the electric fans are not running.

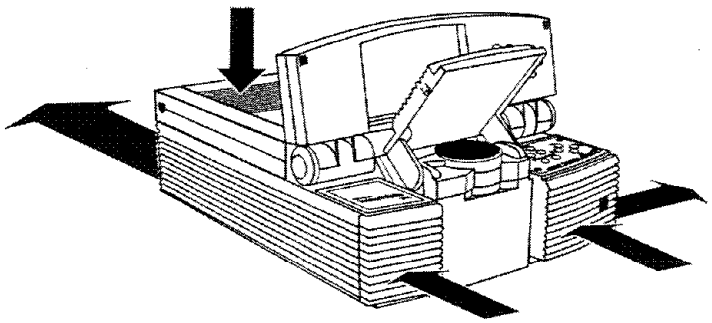


Figure 15
Allow for proper air flow!

Note: If you turn the Desktop Projector off while the rest of your computer system is running, your external monitor will go blank. This is normal. Just turn the Desktop Projector on again and your monitor display will return.

Turning On/Off the Lamp

When you first turn on the projector, the lamp will be on. Press the LAMP key on the Control Panel or remote control to turn the Desktop Projector's lamp off. Pressing the LAMP key again will turn the lamp on. The lamp turns on slowly to prolong lamp life.

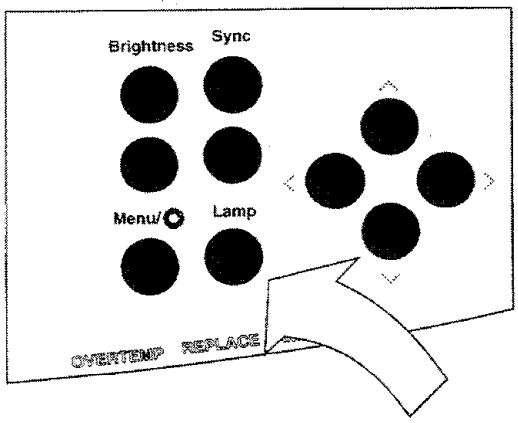


Figure 16
The LAMP key

Note: Turning the lamp off does not cut power to the projector. The fan will still operate. You must move the AC POWER switch to the OFF position to completely power down the projector.

Projecting the Image

Your next step is to adjust the projected image for size and clarity.

Image Size

The size of the projected image varies according to the distance from the Desktop Projector to the projection screen. The following table shows the projected image size (measured diagonally) based on the distance from the projector to the screen.

Distance from Screen	Diagonal Image Size
4 ft/1.2 m	35"/88.9 cm
6 ft/1.8 m	53.5"/135.9 cm
8 ft/2.4 m	72"/182.9 cm
10 ft/3.0 m	90.5"/229.9 cm
12 ft/3.6 m	109.7"/278.6 cm
14 ft/4.3 m	128"/325.1 cm

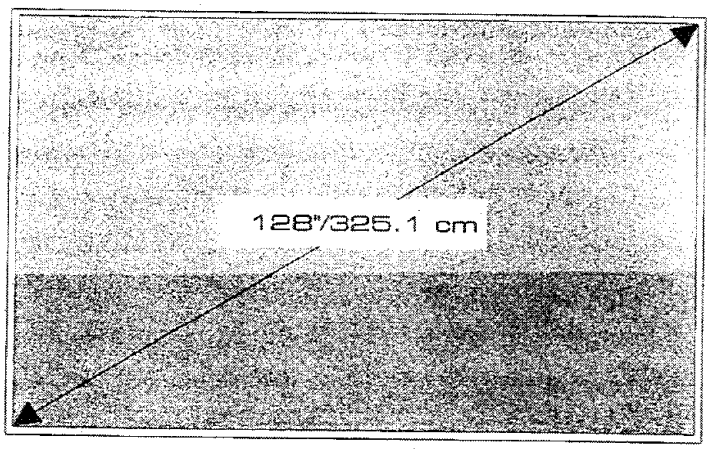


Figure 17
Diagonal measurement of projected image when Desktop Projector is 14' (4.3 m) from projection screen

Focusing

You can use the title screen image that appears when you first start up the projector to make your adjustments.

Using a thumb or fingertip, rotate the focus ring to the right or left for the clearest displayed image.

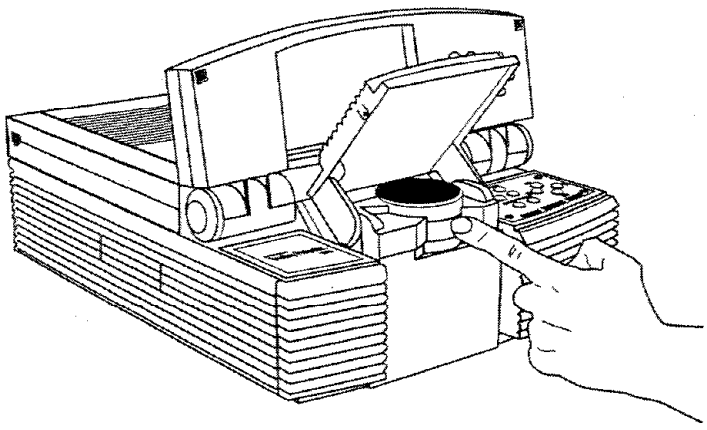
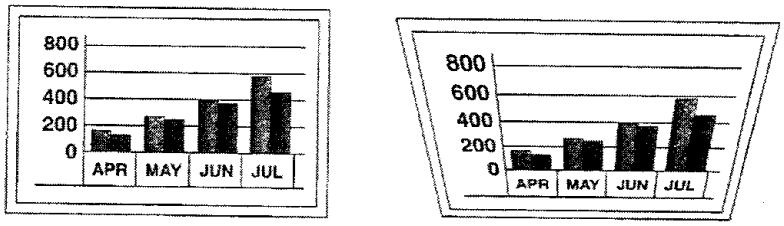


Figure 18
The projector lens focus ring

Keystoning

The normal projected image will have a rectangular shape. Keystoning is when the projected image becomes trapezoidal.



Normal Image Keystoned Image

Figure 19
Normal vs. keystoned images

Keystoning occurs when the front of the Desktop Projector is not perpendicular to the projection screen (the vertical plane) or when it's not placed parallel to the floor (the horizontal plane). Keystoning also occurs when the Desktop Projector is tilted sideways.

To correct for keystoning, always make sure that the projector is at a right angle to the screen in the horizontal plane. The projector is properly aligned if the top and bottom of the projected image are equal in length and parallel to the floor.

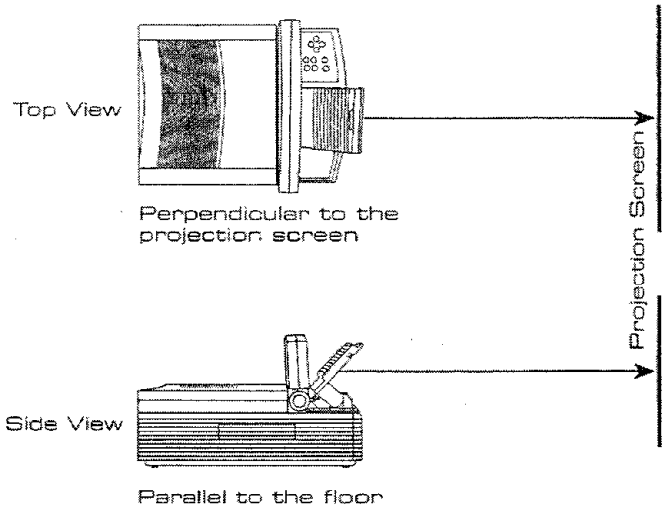


Figure 20
Positioning the Desktop Projector

In order to allow you to project images high enough for the entire audience to view, the Desktop Projector has been designed to minimize this effect. A 10.5° correction for keystoning is built into the projector.

Chapter 3

Using the Desktop Projector

This chapter provides detailed information on the Desktop Projector settings, the Control Panel functions, the Menu Window, and the warning indicators.

The Control Panel

The following figure shows the Control Panel configuration for the Desktop Projector 2300.

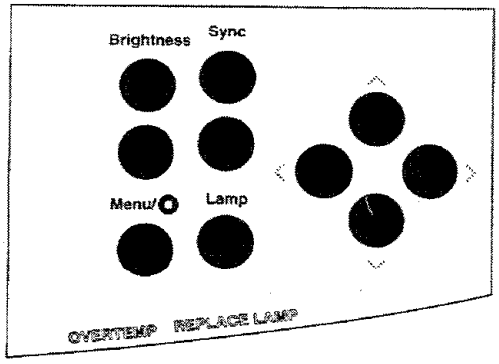


Figure 2-1
The Control Panel

The Control Panel Keys

Arrow Keys

The four arrow keys allow you to:

- Make small adjustments to the projected image's position on the screen. Pressing an arrow key shifts the projected image in the direction indicated by the arrow.
- Access and modify settings within the Menu window.

For more information, please refer to the section titled *The Menu Settings* later in this chapter.

BRIGHTNESS Keys

The BRIGHTNESS keys increase and decrease the intensity level of the projected image. Press the top key to increase brightness and the bottom key to decrease it.

LAMP Key

The LAMP key toggles the projection lamp on and off.

- If you turn the lamp off but leave the projector on, the fan will continue to run.
- You can turn the projector off without allowing the fan to cool down the unit. However, the projector will take a little longer to cool.

MENU/ (CYCLOPS) Key

This key allows you to access and modify the current Desktop Projector settings in the Menu Window, which appears in the lower portion of the displayed image. This key also allows you to initiate the light measurement sequence for calibrating the optional Cyclops interactive pointer system (part number A2060) and to disable Cyclops when you wish to use the Presentation Control Software.

1. Press the MENU key to display the Menu Window.
2. Exit the Menu Window by pressing the MENU key again.

For more information, please refer to *The Menu Settings* section of this chapter.

Note: Holding the key down for several seconds initiates the Cyclops light measurement sequence. For more information, please refer to the *Cyclops User's Guide.*

Note: You cannot use Cyclops and Proxima's Presentation Control Software at the same time. To disable Cyclops and use the software, hold the MENU key (Control Panel) down when you turn the projector power on. *This procedure will not work with the remote control.* To re-enable Cyclops, turn the projector off and then power it up again.

SYNC Keys

The SYNC keys are used to compensate for fine variations in the timing of a computer's video signal. Adjust this setting if you see uneven horizontal features, streaks or shimmering in a graphics image. Press the upper or lower SYNC key until the image stabilizes.

The Menu Settings

The Menu Window appears in the lower portion of the projected image, displaying the currently selected settings for the Desktop Projector. Press the MENU key on the Control Panel or the remote control to display the Menu Window.

Selecting and Changing Settings

To move to and change a setting:

1. Access the Menu Window.
2. Use the Right or Left arrow key to move to the setting that you wish to change.
3. Use the Up or Down arrow key to change the setting.

Note: The active setting (the one that you can change) is indicated by a red outline.

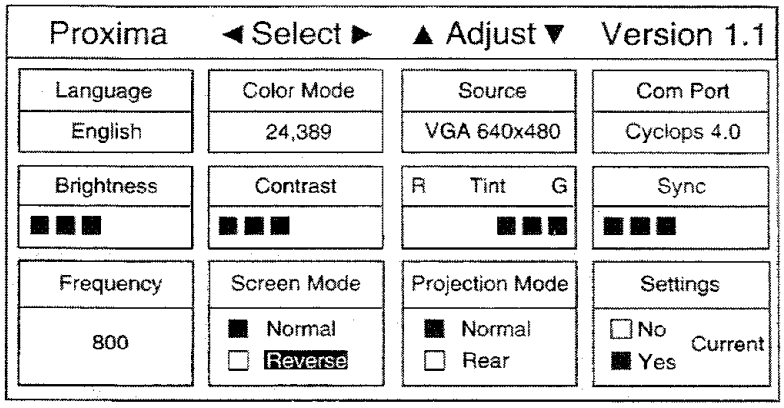


Figure 22
The Menu Window

LANGUAGE

LANGUAGE allows you to select a particular language set for the Menu Window. Languages displayed include Dutch, English, French, German, Italian and Spanish. Use the Up or Down arrow key to cycle through the choices.

COLOR MODE

This setting allows you to select the color mode most suitable for the type of image you're projecting. Use the Up or Down arrow key to cycle through the choices.

Color Mode	Description	Primary Use
8	Typically results in lower color resolution but brighter image	Text screens
2,197	Best for business graphics or other applications requiring bright, high contrast colors	Computer video
15,625	Best for graphics of medium complexity	Computer video
24,389	Best for complex computer graphics and animation	Computer video

SOURCE

SOURCE tells you what input has been detected by the projector. SOURCE doubles as both a status and selection box.

The Desktop Projector selects the best possible value based on the incoming signal. If the image doesn't look right, use the Up or Down arrow key to make an alternative selection.

COM PORT

This value reflects the current status of the projector's serial port. Possible values include Active, Inactive and Cyclops.

Active	The projector has detected activity on the serial port.
Inactive	No activity is detected on the serial port.
Cyclops	Cyclops is attached and functioning.

BRIGHTNESS

This control is used to increase and decrease the overall brightness of the projected image. It functions the same way as the BRIGHTNESS key on the Control Panel. Use the Up or Down arrow key to increase or decrease the brightness level.

CONTRAST

This control allows you to adjust the difference between light and dark segments of the projected image. Use the Up or Down arrow keys to adjust the contrast level.

TINT

The TINT control adjusts the Red and Green color balance.

SYNC

...t this setting if you see uneven horizontal features, streaks or ...mering in a computer video image. Press the Up or Down ...w key until the image stabilizes.

FREQUENCY

This adjustment allows you to synchronize the Desktop Projector with your video source. For example, if your computer has a video card with non-standard signal components (i.e., h-sync or v-sync), the projected image may look jittery, contain bands, or appear out-of-focus. Use the Up or Down arrow key until you find the setting that projects the best image.

Note: Always adjust SYNC before changing the FREQUENCY setting.

SCREEN MODE

This control allows you to switch between NORMAL and REVERSE video modes. REVERSE is used primarily for viewing text screens.

PROJECTION MODE

This function can be used to flip the displayed image, allowing the Desktop Projector to be used with a rear projection screen. PROJECTION can be used in all video modes. Use the Up or Down arrow key to cycle between the NORMAL and REAR options.

SETTINGS

This control allows you to retrieve the factory–set or stored settings, or to save the current settings.

Store Settings

The default value for STORE SETTINGS is NO. If you wish to save the current settings, use the Up or Down arrow key to select YES. The new values become the stored settings under the RETRIEVE SETTINGS option. These settings are retained when the projector is turned off and will be in effect when it is turned back on again.

You can also use STORE SETTINGS in any of the projector's various video modes (i.e., VGA, Macintosh II, etc.). In each case, the current settings can be stored for every entry available in the SOURCE box.

Retrieve Settings

The RETRIEVE SETTINGS option is located in the right portion of the SETTINGS box. To access the RETRIEVE SETTINGS option, go to the STORE SETTINGS box and press the Right arrow key. Three sets of settings can be retrieved:

- CURRENT - Settings in effect before you selected RETRIEVE SETTINGS. If you select CANCEL, you will return to the current settings.
- STORED - Settings whose values you have previously stored. If the STORED entry is grayed out, there are no user-stored settings available.
- FACTORY - The built-in default settings for each video mode.

Warning and Alert Lights

Warning and alert lights located on the projector's control panel provide you with an indication of the Desktop Projector's operating condition.

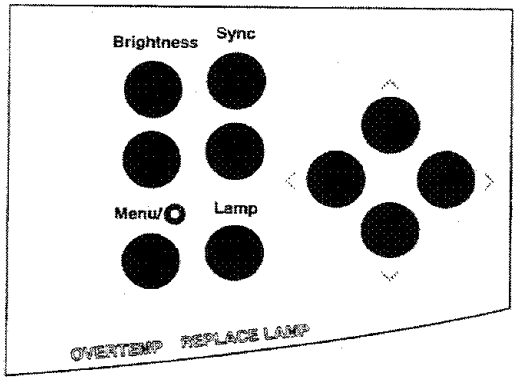


Figure 23
Warning lights

OVERTEMP Warning Light

The OVERTEMP warning will light in the unlikely event that the projector reaches an over–temperature condition. A thermostat will switch off lamp power until the projector cools.

CAUTION! DO NOT TURN OFF THE PROJECTOR! The power must be left on so that the fan continues to cool down the unit.

If an OVERTEMP condition occurs, perform the following checks while you allow the projector to cool:

- Verify that the room temperature is below 80° F (27° C).
- Check the intake grills and exhaust vents. Clear any obstruction to the air flow.
- Check the filter elements. Clean or replace them if necessary. For more information, please refer to *Chapter 4, Maintenance.*
- Check the rear and side exhaust vents. If the projector has reached an OVERTEMP condition and the fan is working, you should feel a strong rush of hot air from the vents. If the fans are not working, the Desktop Projector needs service.

After the projector returns to its normal operating temperature, the OVERTEMP warning light will go out. In order to turn the projection lamp back on again, you must press the LAMP key on the Control Panel or remote control.

Note: The remote control's LAMP key will not function after an OVERTEMP condition until the lamp is turned on from the Control Panel.

REPLACE LAMP Alert Light

The REPLACE LAMP alert light will illuminate if the active and/or alternate projection lamps have burned out, or if the lamp selector is not fully engaged.

You can continue your presentation if one lamp has burned out. REPLACE LAMP remains on as a reminder to replace the burned out lamp.

The Remote Control

The remote control contains all the key functions available on the Control Panel.

Note: For best results, always aim the remote at the projection screen or at the projector's front edge.

The remote control also provides access to additional functions not available on the Control Panel or through the Menu Window.

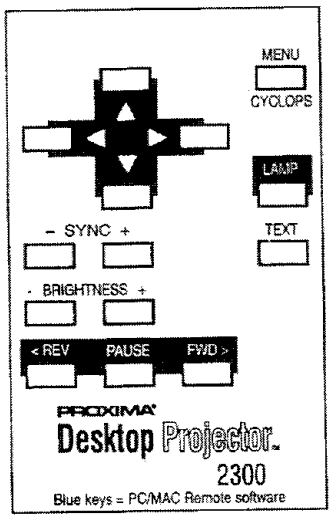


Figure 24
Remote control unit

MENU/CYCLOPS Key

This button is used to display the menu and to calibrate the optional Cyclops interactive pointer system. Its function is identical to the MENU/ key on the Control Panel.

Note: Unlike the MENU/ key on the Control Panel, the remote control's MENU/CYCLOPS key cannot be used to disable Cyclops.

TEXT Key

The TEXT key toggles between the Graphics mode of 640 x 480 lines and the Text mode of 720 x 400 lines. A DOS text screen is easier to view when in text mode.

REV, PAUSE and FWD Keys

These three control keys work with Proxima's Presentation Control Software, which can be used to sequence electronic slides. For more information, please refer to the *Presentation Control Software Guide* that comes with your software.

Chapter 4
Maintenance

There is very little involved with the care and maintenance of your Desktop Projector. However, common sense and periodic maintenance will ensure top performance.

An optional maintenance kit (part number A60) is available that includes the following materials:

- (2) Halogen lamps
- Lens cleaning fluid
- Lens tissue
- Top and front air filters
- Can of compressed air

The lamps, lenses, mirrors, and LCD panel have been carefully aligned at the factory to give you the clearest, brightest image possible. However, physical abuse can cause misalignment or damage to the optical elements. Take appropriate care in use and handling.

CAUTION! The Desktop Projector contains sensitive circuitry and optics. Protect it from potential fluid spills.

Cleaning

From time to time, you'll need to clean the optics on the lens and mirror assembly.

Projection Lens or Mirror

1. Take a piece of lens tissue and form it into a loose swab. Wet it with lens cleaning fluid or alcohol and gently move it over the lens or mirror surface.

2. Take another part of the lens tissue not touched by your bare fingers and repeat the process, going over the lens or mirror in another direction.

3. Repeat steps 1 and 2 until no smudges or particles can be seen when the lens or mirror is illuminated by a strong light. If the lens or mirror is extremely dirty, it may be necessary to use several pieces of lens tissue. Water may be used if alcohol is unavailable.

CAUTION! Acetone should NEVER be used because it may remove the paint from the metal lens or mirror mount and leave a residue on the glass surface.

General Maintenance

Switching Lamps

If your projector lamp burns out during a presentation, the LAMP SELECTOR switch allows you to quickly and easily change to a backup lamp.

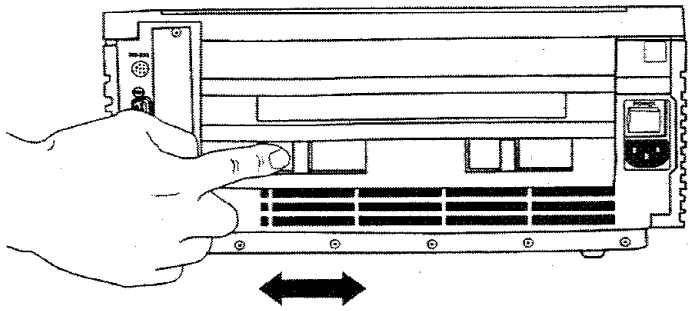


Figure 25
The lamp selector

You do not have to turn off projector power before switching lamps. As you move the LAMP SELECTOR switch to its opposite position, you'll feel the switch click into place. The alternate lamp will illuminate, coming to full brightness slowly to extend the life of the lamp.

Replacing Lamps

Leave the Desktop Projector running with the lamp *off* prior to changing lamps. This will allow the fan to run and speed the cooling of the lamp chamber. Don't open the lamp chamber until the projector has cooled.

1. Remove the power cord. As a built-in safety feature, the lamp chamber cannot be opened unless the cord is removed.

2. Move the lamp chamber latch to the right. The cover panel will "pop" open.

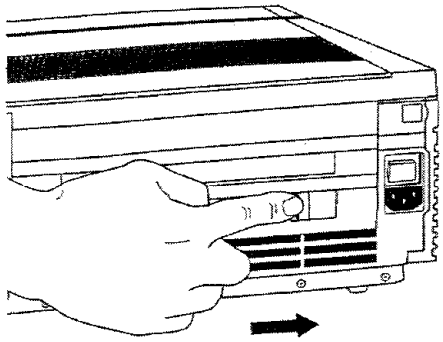


Figure 26
Opening the lamp chamber latch

3. Lift the cover until it stops. *Do not force the cover!* The lamp chamber is now accessible.

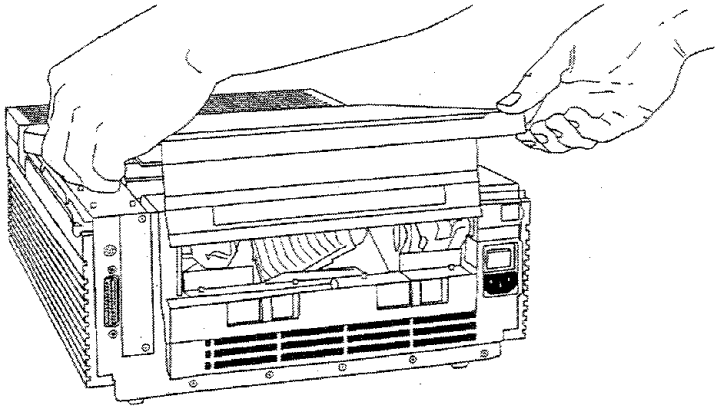


Figure 27
Opening the lamp chamber

CAUTION! The lamp chamber gets very hot during operation. In particular, the ceramic socket at the lamp's base can get extremely hot! Use appropriate care when opening the lamp chamber or changing lamps. Make sure that the lamp chamber and lamp have cooled for at least 3 minutes with the fan running.

4. A lamp release lever is located at the front of each ceramic lamp socket. Push the lever to the outside to release the lamp. Remove the burned out lamp from its socket and replace it with a new one.

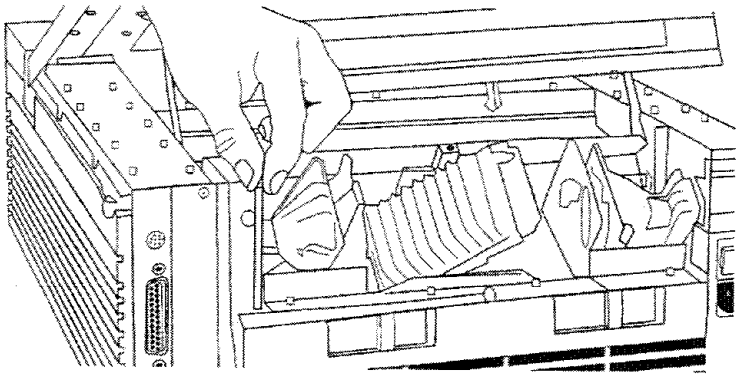


Figure 28
Push the release lever to release the lamp

CAUTION! Always use a clean cloth or tissue to handle the lamp. Touching the lamp or otherwise contaminating its surface can damage it. If you do come in contact with the lamp surface, clean it thoroughly before use.

5. Close the lamp chamber by firmly pressing the cover down at the center of its upper rear edge until the latch engages. The lamp chamber latch will return to its center position, providing access to the power plug receptacle.

6. Replace the power cord.

Changing Air Filters

You should change or clean the three air intake filters after every 250 operating hours to assure proper cooling. These filters are located on the left and right sides at the front of the projector's lower case and under the grill in the top cover.

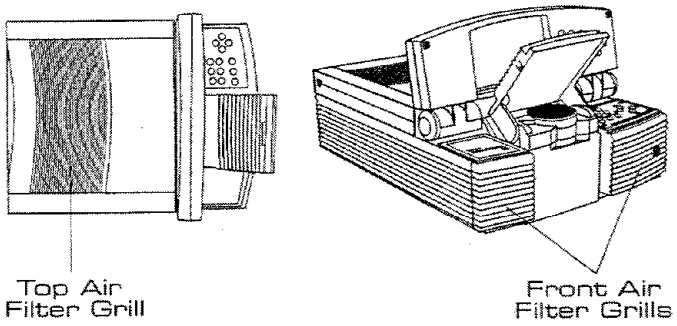


Figure 29
The air intake filter grill assemblies

Front Air Intake Filter Assemblies

1. Release latches are located on the lower portion of the two front filter grill assembly frames. Press these up as you pull the grill assemblies out.

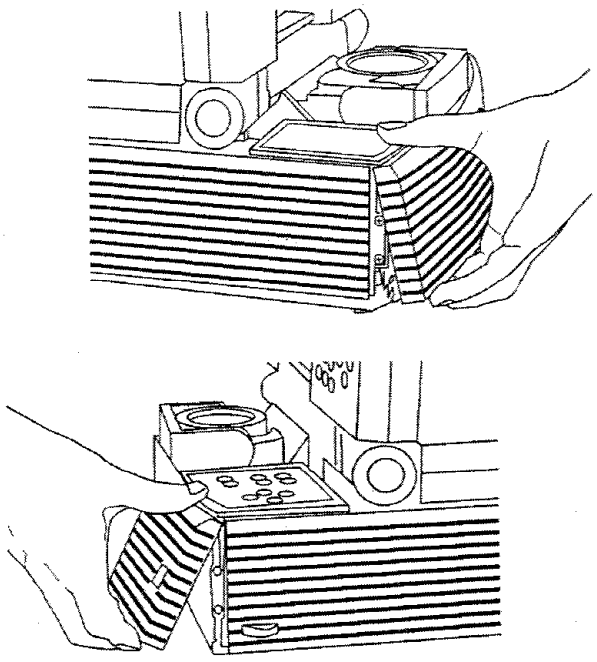


Figure 30
Removing the lower front air filter grill assemblies

2. Remove the foam air filters.

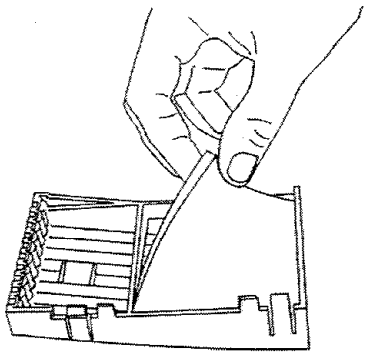


Figure 31
Separating the air filter from the filter grill

3. Depending on their condition, clean or replace the filters.

   - To clean a filter, wash it in a mild solution of soapy water, rinse and let it dry.

   - To replace a filter, refer to *Appendix B: Accessories & Replacement Parts* for ordering information.

4. Clean the grill vents using a cloth or the can of compressed air in the optional maintenance kit.

5. Reassemble the air filter assemblies and replace them.

Top Air Intake Filter Assembly

1. To release the top air filter assembly, place both thumbs into the two depressions located on the rear of the top filter grill assembly frame. Press down and back towards the rear of the unit. The front edge of the grill will pop up.

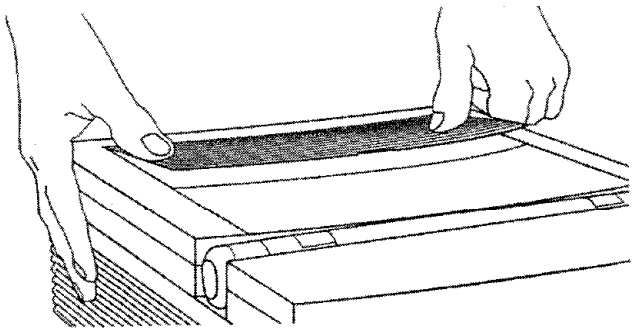


Figure 32
Removing the top air filter grill assembly

2. Grasp the forward edge of the grill and lift to remove it.

3. On the bottom side of the grill assembly, you will see a retaining grid. Grasp the tab at the center to remove it.

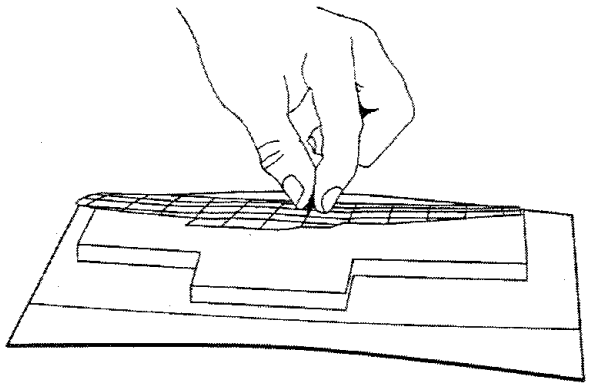


Figure 33
Separating the air filter from the filter grill

4. Remove the foam air filter.

5. Depending on its condition, clean or replace the filter.

6. Clean the grill vents using a cloth or the can of compressed air in the optional maintenance kit.

CAUTION! Be careful not to aim the stream of air towards the projector, as this could force dust particles inside the unit.

7. Reassemble the air filter assembly and replace it.

Changing the Remote Control's Batteries

To install or change the two AAA alkaline batteries in the remote control unit:

1. Locate the battery compartment at the lower rear of the case. Slide the cover off the battery compartment.

2. Remove the old batteries and replace them with new ones. Make sure to align the batteries in the proper direction.

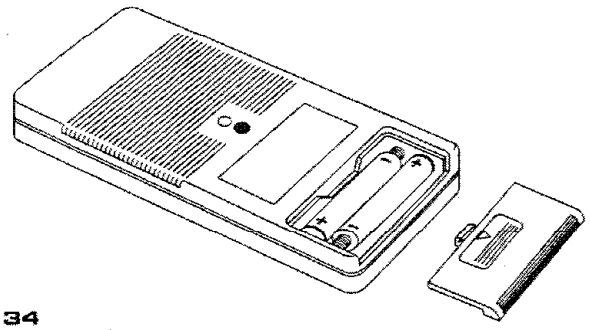


Figure 34
Installing batteries

3. Replace the cover on the battery compartment.

Temperature Extremes

The projector should not be stored in excess of 140° F (60° C). The ideal operating temperature is below 80° F (27°C). After exposure to extremely low temperatures, allow the projector to warm up before using it.

Chapter 5
Troubleshooting

Problem	Likely Cause	Possible Solution(s)
No image projected	No power to projector	Turn power ON Check AC cord Check power to electrical outlet
	Lamp not on	Turn lamp ON
	Circuit breaker engaged	Correct overload situation; press circuit breaker reset button to disengage
	OVERTEMP indication	Allow projector to cool; turn lamp ON
REPLACE LAMP indication	Burned out lamp(s)	Move lamp selector switch to opposite position Replace lamp(s)
Displayed image not square (keystoned)	Projector not placed at proper angle to projection screen	Adjust relative positions of projector and screen
	Projector not horizontal	Level projector
Projected image out of focus	Projection lens not focused	Adjust projection lens focus
Projected image larger than screen	Projector too far from screen	Move projector closer to screen
Projected image smaller than screen	Projector too close to screen	Move projector away from screen
No computer image projected	Loose cable	Check and secure cable connections
	No power to computer	Turn on computer
	Incompatible video system	If possible, check computer with another monitor
	No external monitor	Use included video terminator appropriate to your system Switch between internal screen and video port

Problem	Likely Cause	Possible Solution(s)
No image on computer screen	Power switch off or projector not on	Projector must be on for computer monitor display
	Cable not connected	Connect cable
Monochrome on color monitor	Computer was turned on before projector	Turn projector on and re-boot computer
	Computer's external video port set incorrectly	Set computer's external port to "color"
Streaks on monitor	Video cable plugged into computer is upside-down	Check and re-set cable connections
Faint screen	Low intensity	Adjust BRIGHTNESS and CONTRAST
Jittery, fuzzy letters	Out of sync	Adjust SYNC control
Image off-center	Position controls (arrow keys)	Adjust position controls; if image will not center, check for compatibility problems
	Compatibility problems	Verify projector is image compatible with one of the standards listed in *Appendix A: Specifications*
	Misalignment or damage to optical elements	Projector requires servicing
Cannot get entire image on screen; scrambled image	Compatibility problems	Verify projector is image compatible with one of the standards listed in *Appendix A: Specifications*
"Shimmering" colors	SYNC or BRIGHTNESS out of adjustment	Adjust SYNC or BRIGHTNESS
OVERTEMP indication	Air vent(s) clogged	Allow projector to cool; clear obstructions from vents Clean and replace filters as necessary
	Internal fan failure	Allow projector to cool Check for fan and blower operation; service if necessary
Remote Control doesn't work	Batteries upside-down or old	Check battery placement or replace with new batteries
	Projector's IR receiver window blocked	Remove obstructing object

Where to Get Help

If at any time you need help:

1. Check the Troubleshooting Chart.
2. Call your dealer's technical support line and explain your problem.
3. Call Proxima at:

U.S.A. and Canada:

(619) 457–5500
Press 1 for Customer Service.
(619) 457-8542 (Fax)

Outside U.S.A. and Canada:

(619) 457–5500
Press 1 for Customer Service.
(619) 622-0173 (Fax)

Europe:

+31-43-650 248
+31-43-649 220 (Fax)

Returns

If the Desktop Projector or any of its accessories are determined to be defective:

1. Contact Proxima Customer Service to request a Return Material Authorization (RMA) number.

2. Send the defective unit with the RMA number clearly marked on the outside of the shipping box, freight prepaid, to:

   U.S.A. and Canada:
   Proxima Corporation
   RMA # _____
   9440 Carroll Park Drive
   San Diego, CA 92121

   Europe:
   Proxima Corporation
   RMA # _____
   Horsterweg 24
   6191 RX Beek
   The Netherlands

3. Pack the projector in its original box for safe shipment. If you no longer have the original shipping materials, contact Proxima Customer Service for packaging.

Appendix A
Specifications

Projector Type	Portable Color Data Projector
Computer Compatibility	IBM PC, PS/2 and compatibles (VGA, EGA [1], CGA [1], VESA 640 x 480, 72Hz) Olivetti®/AT&T® (VGA, EGA, CGA) [1] NEC 9801 (VGA, EGA, CGA) Hercules [1], Hercules Plus [1] Apple Macintosh II, LC, Quadra, Centris, Performa and PowerBook [2] Apple Macintosh Classic, Classic II, compact Macintosh family [3] Apple IIGS [1]
Interface Connectors	Computer: DB-25 to appropriate video Y-cable RS-232: Full duplex w/ Mini DIN 8 Cyclops: Recessed card edge connector
LCD Panel	Color-stripe STN (Super-Twisted Nematic)
Resolution	640 x 480 pixels
Number of Colors	Maximum of 24,389 colors
Response Time	100 milliseconds (typical)
Contrast Ratio	20:1 (typical)
Brightness	45 ANSI lumens (typical)
Lamp	FXL 410 watt Tungsten Halogen Quartz
Dimensions	13.1" W x 17" L x 5.9" H 33.3 cm W x 43.2 cm L x 14.9 cm H
Weight	19.5 lb (8.9 kg)
Projection Distance	4' (1.2 m) to 14' (4.3 m) from screen
Screen Image Size	35" (88.9 cm) to 128" (325.1 cm) diagonal
Lens	F/S, 260 - 280 mm focus length
Keystone Correction	Normal at +10.5° projection angle
Power Requirements	Auto switching from 90 - 130 VAC and 200 - 240 VAC, 47 to 65 Hz
Storage Temperature	-4° F to 140° F (-20° C to 60° C)
Humidity Tolerance	10% to 85% non-condensing
Approvals	FCC Class A, UL, TÜV, CSA
Warranty	One year on parts and labor. No warranty on projector lamp.

[1] *Cables for these systems are not included*
[2] *Apple PowerBook 100, 140, and 170 require 3rd party external video adapter*
[3] *Requires 3rd party external video adapter*

Appendix B

Accessories & Replacement Parts

Accessory	Description	Part No.
Cyclops Camera and Wand	Interactive pointer system	A2060
Dual Intensity Laser Pointer	Activates Cyclops sensor from up to 25' away	A90
Desktop Projector™ Soft Carrying Case	Accomodates the Desktop Projector and accessories	A294
Desktop Projector™ Hard Carrying Case	Accomodates the Desktop Projector and accessories	A295
Video Y-Cable	Connects to IBM EGA/CGA, Hercules, Hercules+, and Olivetti OEC video standards	C456-6
Video Y-Cable	Connects to Apple IIGS computer	C460-6
Video Y-Cable	Connects to NEC PC-9801 computer	C465-6
Interface Kit	Connects Mac SE or SE/30 to Desktop Projector	A33
Interface Kit	Connects Mac Classic to Desktop Projector	A35
Computer-grade Surge Protector	Protects projector and other attached equipment from power surges and spikes. North America use only. Comes with $10,000 equipment guarantee.	S100
Video Terminator Kit	VGA terminators	A41
Maintenance Kit	Contains extra halogen lamps, lens cleaning fluid, lens tissue, extra air filters, and can of compressed air	A60

Replacement Parts	Part No.
Air Filter, Top	140-00680-1
Air Filters, Front (2)	140-00684-1
Halogen Lamp	160-00040
Power Cord: British	C1011-6
Power Cord: European	C1003-6
Power Cord: Italian	C1012-6
Power Cord: North American	C1002-6
Dust Cover	705-00046-1
Video Teminator, Macintosh	C935
Video Terminator, VGA	C936
Video Y-Cable: MAC II/IIsi/LC/Quadra	C464-6
Video Y-Cable: VGA	C454-6
Programmable Remote Control	A27

You can order accessories and replacement parts through your local dealer or by contacting Proxima at the following numbers:

U.S.A. and Canada:

(619) 457–5500
Press 1 for Customer Service.
(619) 457-8542 (Fax)

Outside U.S.A. and Canada:

(619) 457–5500
Press 1 for Customer Service.
(619) 622-0173 (Fax)

Europe:

+31-43-650 248
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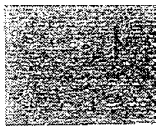

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